Philad^{a} 1st March 1855

My Dear Sir

Since my last I have been completing the arrangements for making the alloys on a manufacturing scale. At present we are making at the rate of 100 lbs per day and have about 300 lbs of one alloy (for 150 lbs pressure) ready for use. I have purchased a balance and weights capable of weighing 28 lbs, which will be sufficient for my purpose because there is a danger of altering the alloys if too much be melted at one time. I procured a set of old punches from the mint which I have no doubt the director will allow me to employ as they have been thrown aside as useless. I am at present using some iron moulds from the mint in which to cast the alloys but as they are very inconvenien~~inconvenient~~ form I have ordered a half dozen according to a pattern I designed In the course of a few days I shall make at the rate of 200 lbs of the alloys per day. For the present I propose making 500 lbs of each alloy, in order to supply any order that I may receive however varied in the rate of pressure, assuming that they are more urgently required for the high pressure boilers of the western waters. I have commenced with the highest and in the course of 3 weeks shall have a supply for all pressures from 100 lbs to 160 lbs. If it be a matter of interest to the department I have calculated the cost of the metal per lb irrespective of fuel labor &c. For the pressures from 80 to 160 lbs the alloy is worth about 3 cents per lb

and for pressures of from 10 to 70 lbs about
60 Cents pr Ct

Hon Jas Guthrie

1853
March 1st
T.C.B. to Sec. Treas.